

A REVISION OF THE NEOTROPICAL BITING MIDGES OF THE GENUS
PARADASYHELEA INGRAM AND MACFIE
(DIPTERA: CERATOPOGONIDAE)

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Abstract.—This revision of the Neotropical biting midges of the genus *Paradasyhelea* Ingram and Macfie recognizes three species of this rare genus in southern South America and includes a key for the recognition of both sexes of all Neotropical species. In addition to the previously described *P. brevipalpis* (Ingram and Macfie), which is redescribed and illustrated, two **new species** are described and illustrated: *P. ingrami*, from Argentina, and *P. macfiei*, from Argentina and Chile.

Resumen.—En esta revisión de las especies patagónicas del curioso género *Paradasyhelea* Ingram & Macfie, se reconocen tres especies para América del Sur, incluyéndose asimismo una clave identificatoria de todas las especies Neotropicales, para ambos sexos. Además de la especie previamente descrita *P. brevipalpis* (Ingram y Macfie), la cual es redescrita e ilustrada, se describen e ilustran dos **especies nuevas**: *P. ingrami* de la Argentina, y *P. macfiei* de la Argentina y Chile.

Key Words: Diptera, Ceratopogonidae, *Paradasyhelea*, biting midges, new species, Neotropical

A single, very unusual biting midge that was collected by Frank W. Edwards during an expedition to Patagonia in 1926 was subsequently described as *Dasyhelea brevipalpis* by Ingram and Macfie (1931). However, Ingram and Macfie noted that "This species falls into that group of insects still included in the genus *Dasyhelea* Kieffer in which the antennal segments are not sculptured, and segments 12–14 in the male are not binodose. It differs moreover from a typical species in the genus in having small humeral pits, a rather long petiole to the median fork, a fringe on the alula, a T. R. (tarsal ratio of hind leg) less than 2, and in the peculiar form of the palp." Perhaps

because this species was otherwise so different from other species of *Dasyhelea*, Macfie (1940) designated it as the type species of the new genus *Paradasyhelea*, which he included in his "Dasyhelea Group" in his classic paper "The genera of Ceratopogonidae."

Subsequently, Wirth and Lee (1959) assigned *Dasyhelea egregia* Macfie (1932) from New Zealand to *Paradasyhelea* Macfie when they described two new species in this genus from eastern Australia. They noted that species of *Paradasyhelea* were unique among three apparently related genera in having both radial cells obsolete, a short costa extending less than 0.5 of wing

length and otherwise resembling these three genera as follows: 1) *Forcipomyia* Meigen, because of its broadly separated eyes, oblique r-m crossvein, hind tarsal ratio less than 2.0, the presence of slender hyaline sensilla on the flagellum, and the shape of the male gonostylus and parameres; 2) *Dasythelea*, because of its 4-segmented palpus, pubescent eyes, short proboscis with vestigial mandibles, and the shape of the apicolateral processes of male genitalia; and 3) *Culicoides* Latreille, by the presence of humeral pits and sensory pits (sensilla coelocnica) on some flagellomeres and terminal flagellomere without a terminal papilla. Wirth and Blanton (1969) essentially reiterated what Wirth and Lee had said about the relationships of these four genera but noted that "*Paradasyhelea* seems to be a relict ceratopogonid of an extremely annectant type with characters cutting across three subfamily lines."

Wirth et al. (1974) were the first workers to include *Paradasyhelea* in the tribe Culicoidini of the subfamily Ceratopogoninae in their list and key of world genera. They noted that "The genera placed in the tribe Culicoidini appear to be as primitive and non-specialized as any in the family . . . We believe it is no accident that the annectant genera *Paradasyhelea* and *Austroconops* Wirth and Lee from Australia, New Zealand, and Patagonia fall here." Wirth and Lee (1959) described the pupae of two species of *Paradasyhelea*, however, Kettle and Elson (1975) first noted the nearly identical nature of pupae in that genus to those of *Culicoides*. Furthermore, when Kettle and Elson described and illustrated the larvae of *P. minuta* they noted ". . . it is clear that larvae of *P. minuta* cannot be separated from those of *Culicoides*, with which they share (1) a head ratio of about 1.5; (2) inconspicuous antennae; (3) an absence of multiple setae on the head; (4) a poorly developed ventral suture on the head; and (5) with most *Culicoides*, an absence of long perianal bristles." Subsequently, when Elson-Harris and Kettle (1985) described the

adults and immature stages of their new Australian species *P. reyei*, they noted "The immatures of *P. reyei* confirm this close similarity between *Paradasyhelea* and *Culicoides*." Elson-Harris and Kettle also listed several features of the immature stages of *Paradasyhelea* that differed from those in *Culicoides*. Perhaps a study in progress by Borkent (personal communication) on all available immature stages of Ceratopogonidae will help resolve questions of intergeneric relationships between these two genera.

Using modern phylogenetic methods involving detailed outgroup comparisons to determine polarity of character states, Borkent (1995) implied a sister group relationship between *Culicoides* and *Paradasyhelea* when he noted "The presence of a number of flagellomeres with sensilla coelocnica in at least some members of this genus may indicate that the derived condition is actually a synapomorphy of *Culicoides* + *Paradasyhelea*." Using the same phylogenetic methods, Borkent and Grogan (1995) determined, based on the absence of palisade setae on tarsomere I of the hind leg in adults, that "the earliest lineage of the Ceratopogoninae are *Culicoides*, *Paradasyhelea* Macfie, and *Washingtonhelea* Wirth and Grogan." Finally, while the monophyly of *Paradasyhelea* has not yet been firmly established, it is the only genus in the tribe Culicoidini in which the adult females of all species have reduced, vestigial mandibles, thereby, at least making them unique within the tribe. While some species of *Culicoides* are autogenous (non-feeding) with reduced, vestigial mandibles, this is almost certainly a derived condition for these species in that genus and is not evidence of a sister group relationship of these two genera.

Currently, there are nine known species of *Paradasyhelea*, eight of which are from the southern hemisphere (Borkent and Wirth 1997): *P. albipunctata* Wirth and Lee (1959), from New South Wales, Australia; *P. boucheti* Clastrier (1989), from New

Caledonia; *P. brevipalpis* Ingram and Macfie (1931), from Argentina; *P. egregia* (Macfie) (1932), from New Zealand; *P. harrisoni* Wirth (1981), from New Zealand; *P. minuta* Wirth and Lee (1959), from New South Wales and Queensland, Australia; *P. neocaledoniensis* Clastrier (1989), from New Caledonia; and *P. reyei* Elson-Harris and Kettle (1985), from Queensland, Australia. Only one species, *P. olympiae* Wirth and Blanton (1969), is known from the northern hemisphere, but only from the original specimens that were collected on the Olympic Peninsula in Olympic National Park, Washington, USA, by Willis Wirth in 1968. However, Wirth and Blanton were not entirely confident of the generic assignment of *P. olympiae* and noted when they compared it with the then four other known species of *Paradasyhelea* that it "differs from all of them in the shape of the apicolateral processes of the ninth tergum, the aedeagus, and the median sclerite of the parameres."

A recent collecting trip to Patagonia in Argentina and Chile by GRS produced some specimens of *Paradasyhelea* that differed from those of *P. brevipalpis*. Art Borkent kindly lent us additional specimens of *Paradasyhelea* in the Canadian National Collection of Insects (CNCI) in Ottawa, Canada. In addition, GRS recently re-examined the holotype of *P. brevipalpis* in The Natural History Museum (BMNH) in London, United Kingdom. A careful examination of these specimens revealed two undescribed species that we describe and illustrate herein, we also redescribe and illustrate *P. brevipalpis* and provide a key for the recognition of all Neotropical species. Clastrier (1989) provided a key to the world species of *Paradasyhelea*, but, inexplicably, failed to include *P. egregia*.

Unless otherwise noted, all recently acquired specimens were mounted on microscope slides in Canada balsam in the manner of Wirth and Marston (1968). Types are deposited in the Museo de La Plata, Argentina (MLPA) or in the CNCI, as indicated.

General terms follow those in Downes and Wirth (1981). We dedicate this article to our recently departed colleague, Dr. Larry Quate, in recognition of his important contributions to the study of primitive Diptera.

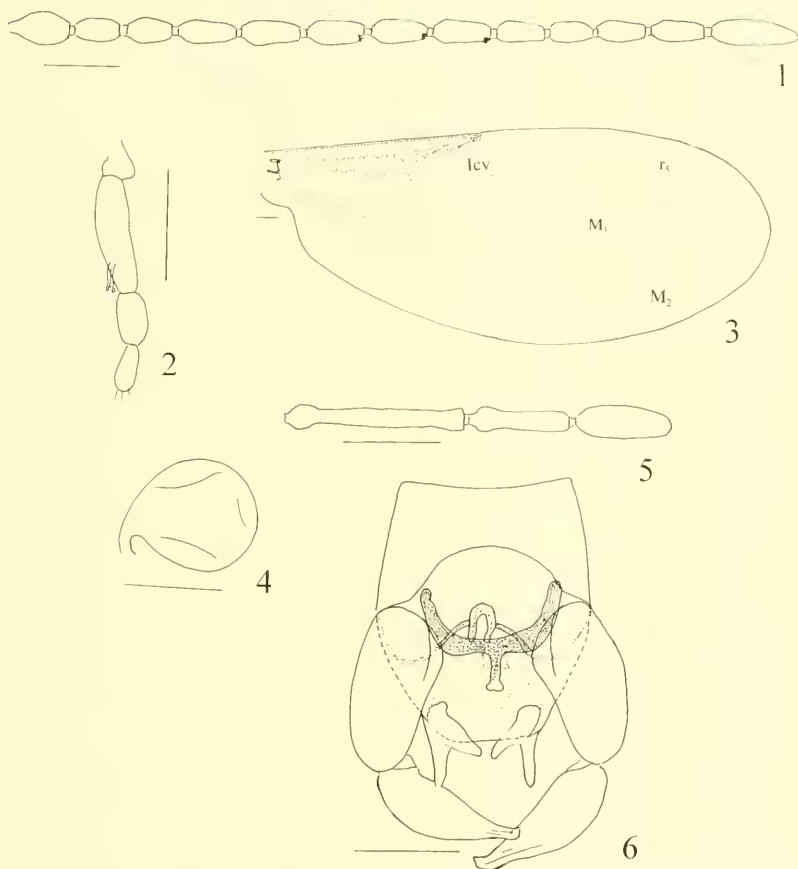
KEY TO NEOTROPICAL SPECIES
OF *PARADASYHELEA*

1. Female 2
- Male 4
2. Palpus 5-segmented, third segment with capitate sensilla enclosed in a rounded pit (Fig. 14); spermatheca small, ovoid *Paradasyhelea macfie*, n. sp.
- Palpus 4 or 5-segmented, capitate sensilla not enclosed in a pit (Figs. 2, 8); spermatheca large, retort-shaped 3
3. Palpus 5-segmented; flagellomere 9 of female unusually short and narrow, shorter than 10 (Fig. 7) *Paradasyhelea ingrami*, n. sp.
- Palpus 4-segmented; flagellomere 9 of female longer than 10 (Figs. 1, 13) *Paradasyhelea brevipalpis* (Ingram and Macfie)
4. Gonostylus abruptly narrowed at midlength (Fig. 18), nearly straight to blunt tip; distal portion of aedeagus tapering to pointed tip (Fig. 18); parameres with inverted U-shaped basal sclerite and a pair of posteriorly projecting processes (Fig. 19) ... *Paradasyhelea macfie*, n. sp.
- Gonostylus stout, flask-shaped (Fig. 6) or progressively tapering to almost pointed tip (Fig. 12); distal portion of aedeagus with knob-like tip (Figs. 6, 12); parameres reduced to a stout inverted U-shaped sclerite (Figs. 6, 12) 5
5. Gonostylus progressively tapering to almost pointed tip; apicolateral process of male genitalia stout (Fig. 12) *Paradasyhelea ingrami*, n. sp.
- Gonostylus flask-shaped; apicolateral process of male genitalia long and slender (Fig. 6) ... *Paradasyhelea brevipalpis* (Ingram and Macfie)

Paradasyhelea brevipalpis (Ingram and Macfie)
(Figs. 1–6)

Dasyhelea brevipalpis Ingram and Macfie 1931: 178 (♂; Argentina, Lake Nahuel Huapi).

Paradasyhelea brevipalpis: Macfie 1940: 17 (comb.); Wirth 1981: 386 (in key); Spinelli 1987: 667 (♀; Argentina, Neuquén and Río Negro provinces); Spinelli and Grogan 1999: 709 (Argentina, Tierra del Fuego).



Figs. 1-6. *Paradasyhelea brevipalpis*. 1, Flagellum of female. 2, Palpus of female. 3, Wing of female. 4, Spermatheca. 5, Flagellomeres 11-13 of male. 6, Genitalia of male. Scales = 0.05 mm. lcv = Intercalary vein; M_1 = Vein M_1 ; M_2 = Vein M_2 ; r_5 = Cell r_5 .

Diagnosis.—Only Neotropical species of *Paradasyhelea* with a 4-segmented palpus. Female with flagellomere 9 longer than 10; capitulate sensilla of palpus not enclosed in a pit; scutellum with 9 stout setae; vein M_2 present or absent; costal ratio 0.41-0.43; spermatheca large, retort-shaped; halter brownish. Male with apicolateral process

long and slender; gonostylus flask-shaped; distal portion of aedeagus with knoblike tip; parameres reduced to a stout inverted U-shaped sclerite.

Female.—*Head*: Dark brown. Eyes pubescent, separated by breadth of 2 ommatidia. Antennal flagellum (Fig. 1) brown; flagellomere 9 longer than 10; sensilla coe-

loconica on flagellomeres 1, 6–8, or rarely 9; scape pale, with 9–11 setae; antennal ratio 0.70 (0.65–0.75, $n = 6$). Palpus (Fig. 2) 4-segmented, pale; segment 2 (fused primitive 2nd & 3rd) with scattered capitate sensilla on surface of distal third. *Thorax*: Uniformly brown. Scutum with sparse vestiture of setae; scutellum with 9 stout setae in row plus 20 smaller setae. Legs brownish including tarsi, femorotibial joints darker; hind tibial comb with 4 bristles; hind tarsal ratio 1.65 (1.52–1.82, $n = 6$); claws short, slightly curved. Wing (Fig. 3) densely covered with mactrotrochia (as determined by their insertions, not illustrated); radial cells obliterated; vein M_2 nearly imperceptible or absent; a conspicuous, forked intercalary vein present in cell r_3 ; wing length 1.20 (1.10–1.32, $n = 6$) mm, breadth 0.50 (0.47–0.55, $n = 6$) mm; costal ratio 0.42 (0.41–0.43). Halter brownish. *Abdomen*: Pale brown. One retort-shaped, very heavily sclerotized spermatheca (Fig. 4) with slender oblique neck, measuring 0.070 by 0.061 mm, neck 0.008 mm.

Male.—Similar to female with usual sexual differences. Lengths of distal three flagellomeres (Fig. 5) in μm 97–56–52. Hind tarsal ratio 1.47 (1.42–1.60, $n = 5$). Wing length 1.10 (1.08–1.17, $n = 5$) mm; breadth 0.36 (0.34–0.37, $n = 5$) mm; costal ratio 0.45 (0.44–0.46, $n = 5$). Genitalia (Fig. 6): Sternite 9 with moderately deep, broad caudomedian excavation; tergite 9 moderately long, distal margin nearly straight; apicolateral process very slender, each with a minute apical seta; cercus elongated, tip truncate. Gonocoxite short, twice as long as broad with poorly developed mesobasal tubercle; gonostylus stout, flask-shaped, as long as gonocoxite, tapering abruptly on distal half, tip pointed, beaklike. Aedeagus Y-shaped; basal arms heavily sclerotized, subparallel; distal portion nearly straight with slightly expanded, knoblike tip. Parameres reduced to stout, inverted U-shaped basal sclerite; basal apodemes curved, heavily sclerotized.

Distribution.—Argentina, in subantarctic

Nothofagus forests, from 40°S south to Tierra del Fuego.

Type.—Holotype male, Argentina, Río Negro Province, eastern end of Lake Nahuel Huapi (BMNH). Examined during the present study.

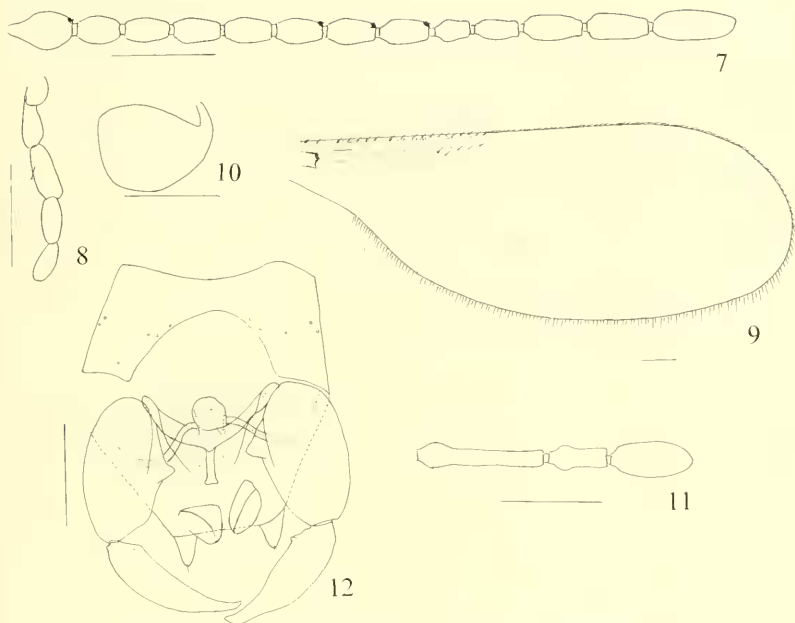
Other specimens examined.—Argentina, Neuquén, 10 km N San Martín de Los Andes, 24-XI-1984, G. Spinelli, 4 ♀, 1 ♂; Neuquén, 6–7 km S San Martín de Los Andes (900 m), 26-XI-1986, G. Spinelli, 1 ♀, 3 ♂; Neuquén, Lanín National Park, Lake Queni, 6/8-II-1999, P. Marino, 1 ♂; Nahuel Huapi National Park, Challhuaco, 6-XII-1992, G. Spinelli, 1 ♀, CDC light trap; Nahuel Huapi National Park, Lake Escondido, 29-XI-1984, G. Spinelli, 1 ♀; same data except 3-XII-1988, D. Añon Suárez, 2 ♂ CDC light trap; Chubut, Los Alerces National Park, lake Futalufquen, 22-II-1994, G. Spinelli, 1 ♀, sweep net; Chubut, Los Alerces National Park, Puerto Mermoud, 23-II-1994, G. Spinelli, 1 ♀, 1 ♂, sweep net; Santa Cruz, Río Turbio, mina 1, 14-I-1992, A. Estévez-J. Muzón, 2 ♀, 4 ♂, sweep net; Tierra del Fuego, lake Escondido (140 m), 2-III-1993, G. Spinelli, 1 ♀; Tierra del Fuego National Park, Lapataia, 9/10-I-1995, G. Spinelli, 6 ♀, CDC light trap.

Paradasyhelea ingrani Spinelli and Grogan, new species

(Figs. 7–12)

Diagnosis.—Only species of *Paradasyhelea* with female flagellomere 9 unusually short; palpus 5-segmented, capitate sensilla on segment 3 not enclosed in a pit; scutellum with 9 stout setae; vein M_2 absent; costal ratio 0.35; halter brownish; spermatheca large, retort-shaped; apicolateral process of male genitalia stout; gonostylus progressively tapering; distal portion of aedeagus with knoblike tip; parameres reduced to a stout inverted U-shaped basal sclerite.

Female.—*Head*: Dark brown. Eyes pubescent, separated by breadth of 2 ommatidia. Antennal flagellum (Fig. 7) brown; flagellomere 9 unusually shorter, narrower



Figs. 7-12. *Paradasyhelea ingrami*. 7, Flagellum of female. 8, Palpus of female. 9, Wing of female. 10, Spermatheca. 11, Flagellomeres 11-13 of male. 12, Genitalia of male. Scales = 0.05 mm.

than those immediately proximad, distad; sensilla coeloconica on flagellomeres 1, 6-8; scape with 7 setae; antennal ratio 0.74. Palpus (Fig. 8) 5-segmented, slightly paler than flagellum; segment 3 with few scattered capitate sensilla on mesal surface, not enclosed in a pit. *Thorax*: Uniformly brown. Scutum with sparse vestiture of setae; scutellum with 9 stout setae in a row, and 9 slender anterior setae. Legs brownish including tarsi, femorotibial joints darker; hind tibial comb with 4 bristles; hind tarsal ratio 1.60; claws short, slightly curved. Wing (Fig. 9) densely covered with macrotrichia (as determined by their insertions, not illustrated); radial cells obliterated; vein M_2 absent; a conspicuous, forked intercalary vein present in cell r_5 ; wing length 0.85 mm, breadth 0.34 mm; costa very short,

costal ratio 0.35. Halter brownish. *Abdomen*: Pale brown. One retort-shaped, very heavily sclerotized spermatheca (Fig. 10) with slender, curved, oblique neck, measuring 0.070 by 0.050 mm, neck 0.015 mm.

Male.—Similar to female with usual sexual differences. Lengths of distal three flagellomeres (Fig. 11) in μm 68-34-44. Hind tarsal ratio 1.60 (1.50-1.75, $n = 5$). Wing length 0.82 (0.74-0.88, $n = 5$) mm; breadth 0.28 (0.26-0.30, $n = 5$) mm; costal ratio 0.37 (0.36-0.38, $n = 5$). Genitalia (Fig. 12): Sternite 9 with deep, broad caudomedian excavation; tergite 9 large, distal margin nearly straight; apicolateral process stout, each with a minute apical seta; cercus conspicuous, tip bluntly rounded. Gonocoxite short, twice as long as broad with large blunt mesobasal tubercle; gonostylus stout,

as long as gonocoxite, distal portion moderately curved, tapering distally to slender weakly pointed tip. Aedeagus Y-shaped; basal arch heavily sclerotized; distal portion nearly straight with slightly expanded, knob-like tip. Parameres reduced to a stout, inverted U-shaped basal sclerite, basal apodemes curved, heavily sclerotized.

Distribution.—Argentina (Chubut and Río Negro provinces).

Types.—Holotype ♂, Argentina, Río Negro, Somuncurá plateau, Chipauquil, 27-XI-1995, G. Spinelli, sweep net (MLPA). Paratypes, 1 ♀, 7 ♂ (MLPA), as follows: Argentina, Río Negro, Somuncurá plateau, Estancia El Rincón, 29-XI-1995, G. Spinelli, 1 ♀ (allotype), sweep net; same data, 1 ♂, CDC light trap; same data, 1 ♂, Malaise trap; Chubut, Sierra Cuadrada plateau, Estancia Don Eduardo, 1–2-XII-1996, G. Spinelli, 5 ♂, Malaise trap.

Etymology.—We are pleased to name this new species in honor of the late Alexander Ingram in recognition of his pioneering publication on Patagonian biting midges that he co-authored with J. W. S. Macfie (Ingram and Macfie 1931).

Discussion.—This is the only Patagonian species inhabiting steppe areas, which are located as far as 350 km from the *Nothofagus* forests.

Paradasyhelea ingrami resembles *P. brevipalpis* by virtue of the large, retort-shaped spermatheca, the distal portion of aedeagus with knoblike tip, and parameres reduced to a stout inverted U-shaped sclerite. However, it clearly differs from *P. brevipalpis* by its 5-segmented palpus, much shorter costa, flagellomere 9 unusually shorter and narrower than those immediately proximad and distad, the gonostylus progressively tapering to weakly pointed tip, and the stouter apicolateral process of the male genitalia. This new species keys to near couplets 5a (*P. boucheti*) and 5b (*P. brevipalpis*) in the world key by Clastrier (1989), but both of these species differ from *P. ingrami* in having 4-segmented palpi.

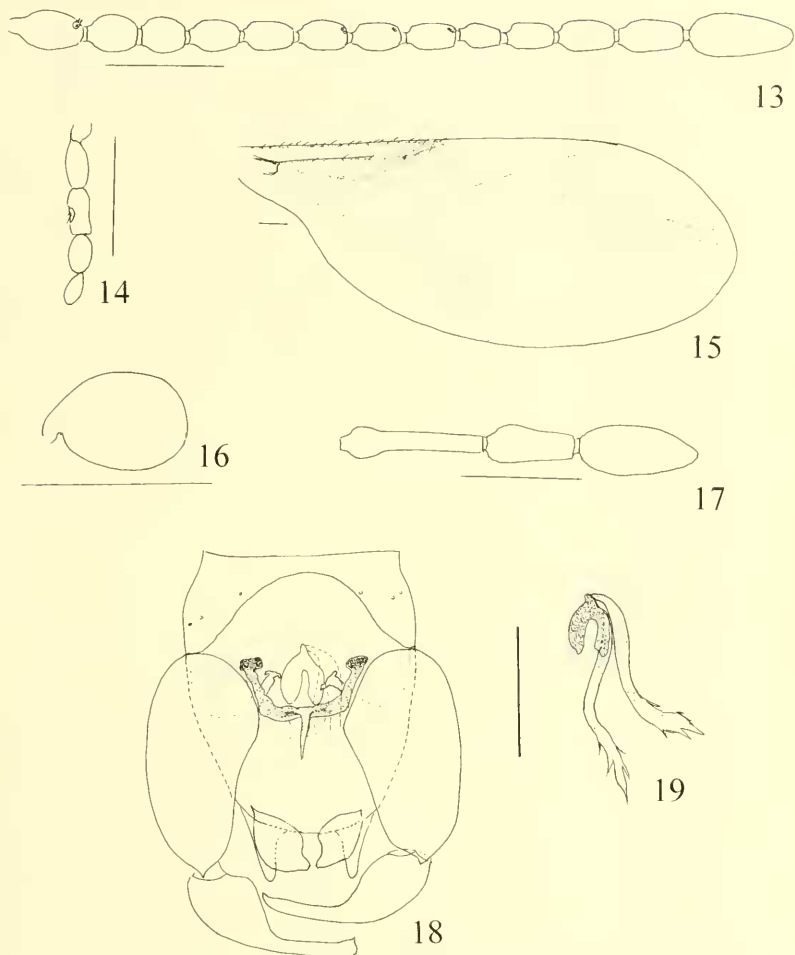
Two females collected from a forested

area in the western portion of the Argentinean province of Neuquén (15 km E Caviahue, 13-XI-1994, G. Spinelli, 2 females, sweep net. (MLPA) are very similar to this species, apparently differing only by their more broadly separated eyes (by width of 4–5 ommatidia). Because of this difference in these two specimens and also because no males were found associated with them, we do not consider them as members of *P. ingrami* and, therefore, have not designated them as paratypes.

***Paradasyhelea macfiei* Spinelli and
Grogan, new species**
(Figs. 13–19)

Diagnosis.—Only species of *Paradasyhelea* with palpus 5-segmented, segment 3 with capitate sensilla enclosed in a rounded pit; vein M2 absent; halter whitish; spermatheca small, ovoid; gonostylus abruptly narrowed at midlength, nearly straight to blunt tip; distal portion of aedeagus tapering to pointed tip; parameres with inverted U-shaped basal sclerite and pair of posteriorly projecting processes.

Female.—*Head*: Dark brown. Eyes pubescent, separated by breadth of 2 ommatidia. Antennal flagellum (Fig. 13) brown; flagellomere 9 subequal to or slightly shorter than those immediately proximad, distad; sensilla coeloconica on flagellomere 1 very inconspicuous, these sensilla may be present or absent on flagellomeres 6–9; scape with 7 setae; antennal ratio 0.71 (0.68–0.75, $n = 5$). Palpus (Fig. 14) 5-segmented, slightly paler than flagellum; segment 3 with a rounded, shallow sensory pit bearing capitate sensilla. *Thorax*: Uniformly brown. Scutum with sparse vestiture of setae; scutellum not in position to count number of setae. Legs brownish including tarsi, femorotibial joints darker; hind tibial comb with 4 bristles; hind tarsal ratio 1.72 (1.68–1.82, $n = 5$); claws short, slightly curved. Wing (Fig. 15) densely covered with macrotrichia (as determined by their insertions, not illustrated); radial cells obliterated; vein M₃ absent; a conspicuous forked intercalary



Figs. 13-19. *Paradasyhelea macfieii*. 13, Flagellum of female. 14, Palpus of female. 15, Wing of female. 16, Spermatheca. 17, Flagellomeres 11-13 of male. 18, Genitalia of male, parameres removed. 19, parameres. Scales = 0.05 mm.

vein present in cell r_5 ; wing length 0.80 (0.70-0.92, $n = 5$) mm, breadth 0.37 (0.32-0.42, $n = 5$) mm; costa short, costal ratio 0.36 (0.35-0.38, $n = 5$). Halter whitish. *Abdomen*: Pale brown. One small ovoid sper-

matheca (Fig. 16) with oblique neck, measuring 0.036 by 0.029 mm, neck 0.007 mm ($n = 2$).

Male.—Similar to female with usual sexual differences. Lengths of distal three fla-

gellomeres (Fig. 17) in μm 54-35-46. Scutellum with 7 stout setae in row, 7 slender, more anterior setae. Hind tarsal ratio 1.70 (1.65-1.75, $n = 5$). Wing length 0.82 (0.77-0.86, $n = 5$) mm; breadth 0.32 (0.30-0.33, $n = 5$) mm; costal ratio 0.37 (0.36-0.39, $n = 5$). Genitalia (Figs. 18-19): Sternite 9 with very deep, broad caudomedian excavation; tergite 9 moderately long, distal margin nearly straight; apicolateral process long, slender, with minute apical seta; cercus conspicuous, conical, somewhat pointed at tip. Gonocoxite twice as long as broad with weakly developed mesobasal tubercle; gonostylus nearly as long as gonocoxite, stout at base, abruptly narrowed at mid-length, nearly straight to bluntly rounded tip with ventral point. Aedeagus Y-shaped; basal arch heavily sclerotized, distal portion tapering to slender pointed tip. Parameres (Fig. 19) with inverted U-shaped basal apodemes heavily sclerotized and pair of posteriorly projecting processes arising basally at basal sclerite, distal half of each process bent ventrally, expanded apically with lateral tooth-like projections, tip pointed.

Distribution.—In subantarctic forests of Argentina (west of Chubut and Río Negro) and Chile.

Types.—Holotype δ , Chile, Cautín (1150 m), Conguillio National Park, 4-5-II-1988, L. Masner (CNCI). Paratypes, 12 δ , 8 σ , as follows: same data as holotype, 12 δ , 3 σ (CNCI); Chile, Llanquihue, 3 km N Ensenada, 4-XII-1994, L. Quate, 2 δ , Malaise trap (MLPA); Argentina, Nahuel Huapi National Park, Chall-huaco, 6-XII-1992, G. Spinelli, 1 δ , sweep net (MLPA); Argentina, Chubut, Los Alerces National Park, 9/12-XII-1994, L. Quate, 1 δ , Malaise trap (MLPA); Neuquén, Laguna Epulafquen, 21/23-II-2001, G. Spinelli, 1 δ , Malaise trap.

Etymology.—We are pleased to name this new species in honor of John William Scott Macfie in recognition of his pioneering paper on Patagonian biting midges that he co-authored with A. Macfie (Ingram and Macfie 1931) and his proposal of the genus *Paradasyhelea* (Macfie 1940).

Discussion.—This is the only species in the genus *Paradasyhelea* in which the males have a pair of posteriorly projecting processes arising from the basal sclerites of the parameres. This new species keys to near couplets 5a (*P. boucheti*) and 5b (*P. brevipalpis*) in the world key by Clastrier (1989), but both of these species differ from *P. macfiei* in having 4-segmented palpi.

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